

## RECANALIZATION OF OCCLUDED VESSEL USING MAGNETIC RESONANCE GUIDANCE

### ABSTRACT OF THE DISCLOSURE

5           A method and apparatus for recanalizing a substantially totally  
occluded vessel in a subject. An image of the substantially totally  
occluded vessel is obtained using magnetic resonance. A recanalization  
device is guided using the obtained image. The occlusion is recanalized  
with the recanalization device. In one embodiment, a magnetic  
10   resonance signal is received with at least one external antenna located  
external to the body of the subject. A map image of the occluded vessel  
is generated using the signal received by the external antenna. A  
magnetic resonance signal is received with an internal antenna  
positioned within the body of the subject, proximate to the occluded  
15   vessel. The map image of the occluded vessel is locally enhanced using  
the signal received by the internal antenna.

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